DAP-04 Installation Manual

Features:

- Universal AC input/Full range (up to 305V)
- 4 DALI addressable output channels
- Comply with DALI standards (IEC62386-101,102,207)
- PWM active high or active low selectable by jumper
- Fully isolated plastic case
- IP20 design
- 3 years warranty
- Convert DALI signal to PWM signal
- Built-in push dim function
- Linear or logarithm dimming curve selectable (meet IEC62382-207)
- Dimming range:1~100%
- Class Ⅱ power unit, no FG
- Power consumption < 0.5W
- Built-in relay for ON/OFF control of MEAN WELL's AC/DC LED power supply

Wiring:

- Use wires with an adequate cross-section (see 3)
- Use suitable mounting tools to do the wiring and mounting (see 3)
- Use a Miniature Circuit Breaker (MCB) with an adequate current rating to protect the lighting system (see 4)

Environmental limitations:

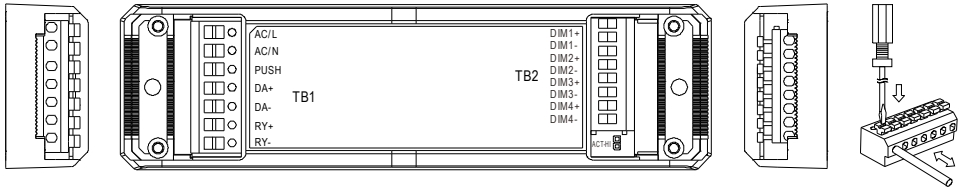
- Maximum ambient temperature must not exceed 60℃
- Only install the unit at indoor environments

Cautions:

- This unit must be installed by a qualified electrician
- Only can be used with MEANWELL's LED Power Supply Units (PSUs) equipped with 3 in 1 dimming function. LED PSUs made by other manufacturers may be incompatible with the DAP-04

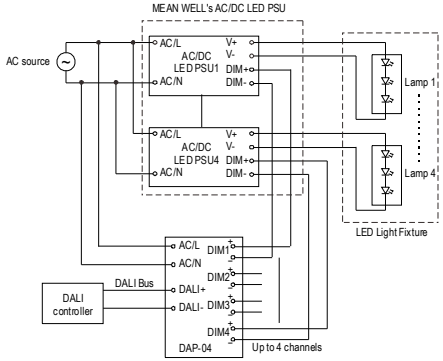
Settings and connections:

1.Terminal Block Pin Assignments



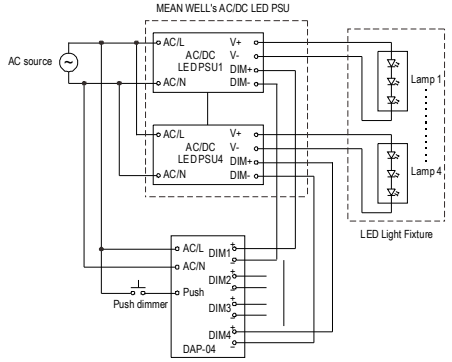
2.Connection of Dimming Functions

a.DALI



※Note: Choose a suitable cable for connecting the DAP-04 and DALI controller and make sure the maximum voltage drop between these two units should not be higher than 2V. (Maximum cable length for 1.5mm^2 cables is 300m.)

b.Push dim



Dimming control mechanism

Function	Pushing time
No change of state	<0.05 sec
Turn ON/OFF	0.1~1 sec
Dimming up or down	1.5~10 sec
Setting light to 100%	>11 sec

- It will always dim up when light intensity is lower than 10%, whereas it will always dim down when light intensity is higher than 90%
- Factory default dimming setting : 100%

※Note: Only use Normally Open Push Button without light indicator .

c.Dimming with LED PSU ON/OFF

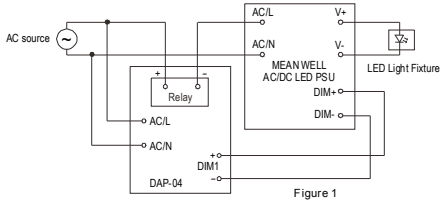


Figure 1

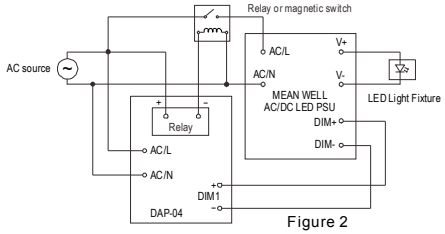
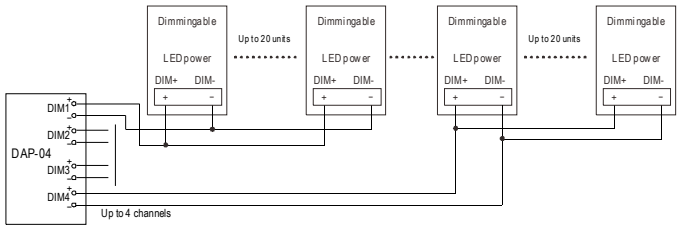


Figure 2

The DAP-04 is equipped with a relay that can be used to turn ON/OFF MEAN WELL LED PSUs. The relay is in the closed position when the DIM1 generates dimming signal; the relay is in the open position when there is no output signal on the DIM1.

※Note: An additional magnetic switch is needed when the total input current of the selected LED PSUs is higher than 8A or used with LED PSUs whose inrush current is greater than 50A, please refer to the figure 2.

d.Synchronization operation



The DAP-04 is equipped with 4 DALI channels, each channel can drive up to 20 LED PSUs, allowing a total of 80 LED PSUs to be connected to the DALI/PWM converter. (Each channel is individually addressable, light intensity of LED PSUs connected to the same channel will be the same; the maximum allowable voltage drop between the DAP-04 and LED PSUs should not be higher than 0.5V; Maximum cable length for 1.31mm^2 cables is 300m.)

※Note: Light intensity of LEDs in the same group may be decreased when one of the LED PSUs is AC OFF.

3.Recommended Screwdriver, Wire and Torque Setting

Type	The cover (the blue ones)	TB1(ACL/N,PUSH,DALI±,RY±)	TB2(DIM1±,2±,3±,4±)
Solid wire		ϕ1.02mm-ϕ1.628mm	ϕ1.02mm-ϕ1.29mm
Stranded wire		0.823-2.08mm^2	0.823-1.31mm^2
American wire gauge		14-18AWG	16-18AWG
Wire stripping length		10mm(0.39")	10mm(0.39")
Screwdriver	5mm Phillips	3mm Slotted	3mm Slotted
Recommended tightening torque	4.6kgf-cm(4lb-in)		
Suggested push-down strength		3-4kp(6.61-8.81lb$_f$)	3-4kp(6.61-8.81lb$_f$)

4.Suggested Maximum Number of the DAP-04 Units that can be Connected to a MCB at 230Vac

Model	B10	B16	C10	C16
DAP-04	10	16	17	27

※Note: These calculated values are based on MCB S201 series manufactured by ABB.

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Version 0